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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,919	01/17/2006	Mauro Barbieri	NL 030869	5313
24737 7590 04/14/2010 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER				
CHOWDHURY, NIGAR				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
04/14/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,919

Applicant(s)

BARBIERI, MAURO

Examiner

NIGAR CHOWDHURY

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 01/13/2010 have been fully considered but they are not persuasive.
2. In re pages 9-13, applicant argues that Okuyama et al. discloses the use of a rate converter for recording different programs at different data rates, so as to optimize the use of limited storage capacity, according to user preferences or user tendencies but fails to disclose detecting a change of average bit rate, detecting shot-cuts in the content item and adjusting the period of time based on the detected shot-cut, as recited in claim 1.

In response, the examiner respectfully disagrees. Okuyama et al. discloses in fig. 5-6, paragraph 0036-0039 that "...a bit rate after conversion with a rate converter during one program....bit rate C with the lowermost level represents....commercials was detected....bit rate B of the medium level represents...a usual program....bit rate A of the high level represents a case when broadcasting of highlights was detected by program information.....if recording in the same program is conducted by taking the contents into account, then the entire quantity of data can be reduced by recording only the contents with a high priority as high-quality video and recording other contents at a low bit rate....HDTV broadcasting...original data is sometimes SDTV....HDTV broadcast time zone 17a, the original videoHDTV....bit rate A.....time zone 17b....SDTV video is broadcast as HDTV.....bit rate B....the difference therebetween can be recognized automatically...." Okuyama et al. discloses a different bit rate of a

program having shot-cuts of commercial, a usual program, broadcasting of highlights. While a program is recording, the entire quantity of a data is reduced by recording only the contents with a high priority as high quality video and recording other contents at a low bit rate which adjust a period of time by reducing the quantity of data based on the detected high quality video. During adjusting the period of time, it detects high priority of content with changed bit rate (e.g. if user wants to record commercial or usual program, it will be change to high quality of program) to record a content as user desired.

Furthermore, according to fig. 6, in HDTV broadcasting, the original video data is sometimes SDTV, but broadcasted as HDTV. In a HDTV broadcast time zone 17a, the original video data is HDTV and the average level is a high bit rate A, whereas in a time zone 17b in which SDTV video is broadcasted as HDTV, because the amount of information is small, the average level is a low bit rate B and the difference there between can be recognized automatically. It is possible to detect automatically when a SDTV video is broadcasted as HDTV. Therefore, Okuyama et al. meets the limitation of detecting a change of the average bit rate by detecting HDTV video and SDTV video.

3. In re pages 14-15, applicant argues that Okuyama fails to disclose "wherein a moving average of the bit rate is determined" as recited in claim 4.

In response, the examiner respectfully disagrees. In addition to paragraph 2 above, Okuyama discloses a different bit rate (A, B, and C) of a program causes a different average bit rate of different programs. Therefore, Okuyama et al. meets the

limitation of a moving average of the bit rate is determined by the bit rate of the program.

4. Claims 2, 5, 6, 7 are rejected for the same reason as discussed in the corresponding paragraph 2-3 above.
5. Claims 8-13 are rejected for the same reason as discussed in the corresponding paragraph 2-3 above.
6. Claims 14, 16-21 are rejected for the same reason as discussed in the corresponding paragraph 2-3 above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2, 4-6, 8-12, 14, 16-19, 21 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2005/0276567 by Okuyama et al.
8. Regarding **claim 1**, a method of detecting a boundary of a content item in a digital video stream, the method comprising the steps of:
 - determining (130), in a processor, an average bit rate of the video stream over a period of time (fig. 5-6, paragraph 0036-0038), and

- detecting (140), in a detector, a change of the average bit rate indicating the boundary of the content item (fig. 5-6, paragraph 0036-0038).

Wherein method further comprises the steps of:

detecting (125) shot-cuts in the content item, and adjusting (126) the period of time in the determining step based on the detected shot-cuts (fig. 5-6, paragraph 0036-0038).

9. Regarding **claim 2**, the method wherein the content item is in a digital broadcast video stream (paragraph 0019).

10. Regarding **claim 4**, the method wherein a moving average of the bit rate is determined (fig. 5-6, paragraph 0036-0038).

11. Regarding **claim 5**, the method wherein the content item is a commercial (paragraph 0036).

12. Regarding **claim 6**, the method wherein the digital video stream is MPEG-compressed (paragraph 0028).

13. Regarding **claim 8**, the method further comprising the steps of:

- obtaining broadcast schedule data indicating a beginning and/or end of broadcasting at least one content item (paragraph 0038),

- verifying whether broadcast schedule data are in accordance with the detected boundary of a respective content item in the video stream (fig. 5-6, paragraph 0036-0038).

14. Regarding **claim 9**, the method further comprising a step (150) of determining a position of the detected boundary of the content item within a corresponding period of time (fig. 5-6, paragraph 0036-0038).

15. **Claim 10** is rejected for the same reason as discussed in the corresponding claim 1 above.

16. **Claim 11** is rejected for the same reason as discussed in the corresponding claim 2 above.

17. **Claim 12** is rejected for the same reason as discussed in the corresponding claim 1 above.

18. **Claim 14** is rejected for the same reason as discussed in the corresponding claims 1 and 4 above.

19. **Claim 16** is rejected for the same reason as discussed in the corresponding claim 2 above.

20. **Claim 17** is rejected for the same reason as discussed in the corresponding claim 4 above.

21. **Claim 18** is rejected for the same reason as discussed in the corresponding claim 5 above.

22. **Claim 19** is rejected for the same reason as discussed in the corresponding claim 6 above.
23. **Claim 21** is rejected for the same reason as discussed in the corresponding claim 8 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 7, 13, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2005/0276567 by Okuyama et al.
25. Regarding **claim 7**, Okuyama discloses the method wherein the content item is MPEG compressed but fails to disclose the content item is in an encrypted digital video stream.

It is noted that the use of encrypted digital video stream is old and well-known in the recording art. Therefore, official notice is taken. Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a well-known encrypted digital video stream to receive secure digital broadcast video signal for user's security purpose.

26. Regarding **claim 13**, Okuyama discloses the method wherein the content item is MPEG compressed but fails to disclose a computer program product enabling a programmable device when executing computer program product to function as the device.

It is noted that the use of computer program product is old and well-known in the recording art. Therefore, official notice is taken. Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a well-known computer program product to function as device.

27. **Claim 20** is rejected for the same reason as discussed in the corresponding claim 7 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIGAR CHOWDHURY whose telephone number is (571)272-8890. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NC
04/10/2010

/JAMIE JO ATALA/
Primary Examiner, Art Unit 2621